



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,483	08/27/2003	Maximilian Bergmann	TRW(AS)6718	5853

26294 7590 03/31/2006

TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.
1300 EAST NINTH STREET, SUITE 1700
CLEVEVLAND, OH 44114

EXAMINER

BROWN, DREW J

ART UNIT	PAPER NUMBER
----------	--------------

3616

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/649,483	Applicant(s) BERGMANN ET AL.	
	Examiner Drew J. Brown	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/23/06 (amendment).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 8 and 12 are objected to because of the following informalities:
In line 2 of claim 8, "in the that part" should be changed to --in that the part--.
In line 20 of claim 12, "said sleeve (18) has" should be changed to --further comprising a sleeve having--.
Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-11 and 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
In line 18 of claim 1, "in an activated state of said gas generator" renders the claim indefinite because it is unclear if the limitation implies that the holding body is not fastened both to the charge housing and to the gas generator when the gas generator is not in an activated state.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 9-11 and 13-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Nanmu (U.S. Pub. No. 2002/0180195 A1). Nanmu discloses a hybrid gas generator comprising a cylindrical outer housing (3) having a longitudinal axis, a pressure chamber filled with compressed gas (paragraph 34) and closed by a membrane (5), and a pyrotechnic charge (9) provided for opening the membrane. A sleeve (7) is connected with the peripheral wall of the container and forms a further section of the outer housing, and there is an insertion opening that is provided in the sleeve. The charge is accommodated in a bush-shaped charge housing (21), which is arranged outside the pressure chamber and has a longitudinal axis arranged substantially at right-angles to the longitudinal axis of the outer housing and extends into the housing. There is an axial outflow opening (19) provided in the outer housing at one axial end, characterized in that inside the outer housing a separate holding body (11) is arranged for retaining the charge housing in a longitudinal direction of the charge housing to avoid movement of the charge housing in the longitudinal direction of the charge housing. The charge housing also has at least one opening (27) that is directed to the membrane. The holding body is fastened both to the charge housing and, additionally, to a part of the gas generator that is not destroyed (31) in an activated state of the gas generator to act against displacement of the holding body along the longitudinal axis away from the charge housing. The part being non-destructed in the activated state of the gas generator is also fastened to a container defining the pressure chamber. The holding body engages on the charge housing such that it has an effect against a movement thereof in a direction of at least one of the longitudinal axes. The holding body is also hollow and forms a channel (11a) between the charge housing and the membrane so that gas leaving the charge housing is directed to the membrane, and gas will flow through this channel when the gas generator is activated.

The pressure chamber has an end wall (17) facing the charge housing, where the holding body is provided inside the outer housing between the charge housing and the end wall. The pressure chamber is also defined by a bottle-shaped container with a peripheral wall that forms a section of the outer housing of the gas generator, where the container has an end face (left end of

Art Unit: 3616

housing 3) that forms the end wall adjacent to which the holding body is arranged. The end wall has an opening (17a) closed by the membrane, where the membrane is fastened to a membrane holder (paragraph 35), which in turn is arranged on the end wall.

3. Claims 1-11 and 13-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Mizuno et al. (Foreign Pat. No. EP 1 223 085 A2). Mizuno et al. discloses a hybrid gas generator comprising a cylindrical outer housing (3) having a longitudinal axis, a pressure chamber (3C) filled with compressed gas and closed by a membrane (9), and a pyrotechnic charge (11) provided for opening the membrane. A sleeve (12) is connected with the peripheral wall of the container and forms a further section of the outer housing, and there is an insertion opening (12a) that is provided in the sleeve. The charge is accommodated in a bush-shaped charge housing (17), which is arranged outside the pressure chamber and has a longitudinal axis arranged substantially at right-angles to the longitudinal axis of the outer housing and extends into the housing. There is an axial outflow opening (15) provided in the outer housing at one axial end, characterized in that inside the outer housing a separate holding body (21) is arranged for retaining the charge housing in a longitudinal direction of the charge housing to avoid movement of the charge housing in the longitudinal direction of the charge housing. The charge housing also has at least one opening (17a) that is directed to the membrane. The holding body is fastened both to the charge housing and, additionally, to a part of the gas generator that is not destroyed (holding body fastened to the part 6 via the charge housing 17 and the outer housing 3) in an activated state of the gas generator to act against displacement of the holding body along the longitudinal axis away from the charge housing. The part being non-destroyed in the activated state of the gas generator is also fastened to a container defining the pressure chamber. The holding body engages on the charge housing such that it has an effect against a movement thereof in a direction of at least one of the longitudinal axes. The holding body is also hollow and forms a channel (17C) between the charge housing and the membrane so that gas leaving the charge housing is directed to the membrane, and gas will flow through this channel when the gas generator is activated.

The pressure chamber has an end wall (left end of 3 adjacent to 6 according to Fig. 1) facing the charge housing, where the holding body is provided inside the outer housing between

Art Unit: 3616

the charge housing and the end wall. The pressure chamber is also defined by a bottle-shaped container with a peripheral wall that forms a section of the outer housing of the gas generator, where the container has an end face (left end of 3 adjacent to Fig. 1) that forms the end wall adjacent to which the holding body is arranged. The end wall has an opening 6a closed by the membrane, where the membrane is fastened to a membrane holder (24), which in turn is arranged on the end wall. The holding body adjoins the membrane holder, and the membrane holder is considered to be the part being non-destructed in the activated state of the gas generator.

Allowable Subject Matter

4. Claim 12 is allowed. The Examiner notes that the claim should be rewritten to overcome the objection as discussed above.

Response to Arguments

5. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

With respect to the argument that Mizuno et al. does not disclose or suggest a holding body, in an activated state of the gas generator, that is fastened both to the charge housing and, additionally, to a part of the gas generator which is not destroyed in the activated state of the gas generator to act against displacement of the holding body along the longitudinal axis away from the charge housing, the Examiner maintains that the rejection is proper because the holding body (21) is fastened both to the charge housing (17) and to a part of the gas generator which is not destroyed (holding body fastened to the part 6 via the charge housing 17 and the outer housing 3) when in an activated state of the gas generator.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3616

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 8 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J. Brown
Examiner
Art Unit 3616

DJB
3/27/06

 3/29/06
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600